

# AMATEUR RADIO



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(N.S.W.) and the R.A.A.F. Wireless Reserve.



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APRIL, 1934

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# "AMATEUR RADIO"

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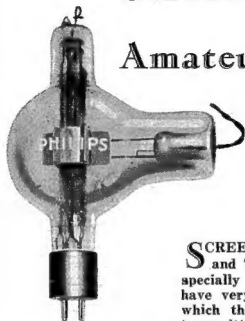
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# Screen Grid Valves

For

## Amateur Transmitters



$\frac{1}{2}$  of actual size.

Types:

QB 2/75, QC 05/15

**S**CREEN GRID Transmitting Valves for 15 and 75 watts have been designed by Philips specially for use by amateurs. These valves have very important properties, as a result of which the construction and adjustment of the transmitter can be greatly simplified. The control-grid and anode of these valves are screened from each other by a screen-grid, thus reducing anode-control grid capacity to a minimum. When used as H.F. amplifier or frequency multiplier in controlled transmitters there is practically no reaction of the anode circuit on the grid circuit, and self-oscillation is impossible with screening outside the valve. Neutralisation is unnecessary, so it is very easy to alter the wave-length at short notice. These screen-grid valves give greater amplification than triodes under the same conditions.

Table A shows the various electrical properties of the Philips amateur transmitting valves:—

### CHARACTERISTICS:

Table A. Type.	Screen Grid Valves.	
	QC 05/15.	QB 2/75
Filament voltage .. . . .	4.0	10.0
Filament current* .. . . .	1	3.25
Saturation current* .. . . .	400	2,000
Anode voltage .. . . .	400-500	2,000
Screen grid voltage .. . . .	75-125	300-500
Max. anode dissipation .. . . .	15	75
Anode dissipation on test .. . . .	20	100
Max. screen grid dissipation .. . . .	3	15
Amplification factor* .. . . .	225	200
Mutual conductance (slope)* .. . . .	1.4	1.4
Int. resistance* .. . . .	160,000	150,000
Anode-grid capacity .. . . .	.001	.02
Max. diam of bulb .. . . .	50	100
Max. length .. . . .	160	210

\*Approximate values.

# PHILIPS

## TRANSMITTING VALVES

# EDITORIAL

Does it ever occur to you, Brother Ham, what excellent work is being done by the various office-bearers in your own local section of the W.I.A. or other Ham organisation? No matter whether any particular person does things which do not exactly fit in with your own ideas, rest assured he is doing those in a conscientious manner, having in mind the while the welfare of the organisation which he represents.

Life is too short to take too much note of the many kicks which we all have coming to us, and it therefore behoves each and every one of us to do our very best to pull our weight, as it were, with the rest of the team, whose job it is to see that the progress of the club or what have you is not standing still.

As an introduction, perhaps the above remarks have left you up in the air.

Let us be more to the point.

"Amateur Radio" tells you on its front cover that it is published in the interests of such by the Wireless Institute of Australia (Victorian Division). Does it not strike you forcibly that that body must be most progressive and courageous in its policy to publish a 100 per cent. Ham magazine where others similar have failed?

But we digress in our enthusiasm. However, we have painted a picture of what organisation can do.

In Victoria (VK3) election time for the W.I.A. draws near. It is your responsibility to cast about for even better executive than you have to-day. You may say that if we have such a good council to have courage enough to start a magazine and see that job is carried out correctly, why make a change? You must confess such a statement would be retrogressive, inasmuch as we feel you will admit "standing still is going back."

Now, here's the rub. Cast your eyes about you, talk to your member friends, and make some suggestions as to who you consider should hold office after the coming elections in June. You may think that June is a far distant date, but there is no time like the present time, and it is never too early to discuss this very important

matter. We urge you to use your franchise intelligently.

Incidentally, this magazine holds no party views except that of the progression and well-being of the Australian Radio Amateur.

While the powers that be are looking after the many and several details that go to make your organisation a success, you can be quietly doing your job of work, and that is to get a new member for the W.I.A. Get your prospect, work on him, sell him the many benefits of membership, depending on circumstance. Perhaps it may be wise in some cases to let that sink in for awhile. Later persistency will nearly always break down the resistance of your prospective member, so be patient and tactful.

We venture to say that once you have brought in a new member you will have the satisfaction of having done something in return for the work done by those in other responsible positions; a satisfaction that must be felt personally before being appreciated.

Do not be afraid to criticise those who are in executive positions. In doing so, do not follow the line of least resistance and use the usual destructive methods. On the contrary, if you criticise, do so in a constructive manner. It will be appreciated by any conscientious member of your council, and, further, in expressing your ideas you are giving exercise to your brain in that you are making yourself a potential contender for a seat on council at some future date. Executive understudies are always at a premium, and the W.I.A. is no exception.

There is an old saying that "Nobody cannot be done without." Think it over. While your present executive and others are doing good work behind the scenes, nobody will be more pleased than they to see a real contest for the various seats when they become vacant in June next.

In the meantime do your job "behind the scenes," whether it be the introduction of a new member or any other job, provided it is for the benefit of your institute and for the well-being of the Radio Amateurs of Australia.

K.

56 MC

## Transmitters and Receivers

By Syd. Maguire, VK2XY.

Owing to the tremendous interest being taken in 5 metre work, I have decided to try and give in a simple manner a practical article on the infant band of the hams, 56 MC.

Firstly, the receiver.

Owing to the frequency, CW on 5 MX introduces many complications, so we will deal with phone only.

Super-regenerative receivers hold pride of place at the present juncture.

Now, what is super-regeneration—why and how?

The effect of applying reaction to a circuit is to reduce its positive resistance, and so neutralise by negatizing the resistance in the circuit.

The negative resistance may be equal to, less than, or greater than the positive resistance.

When the negative resistance equals the positive resistance the effect of applying an input voltage causes oscillation to build up, which reach an infinite amplitude, and these oscillations continue after the input voltage is interrupted, with no further increase in amplitude. The circuit is now in a state of self-oscillation.

In practice self-oscillation takes place before the positive resistance is completely neutralised.

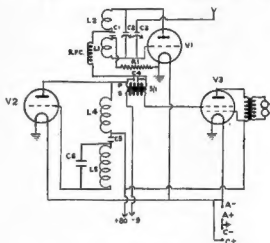
When the negative resistance is less than the positive, the oscillation will build up to a definite amplitude, determined by the effective positive resistance, and will continue only as long as the input voltage is maintained. On cessation the oscillation will die out.

If it were possible to build a stable regenerative detector circuit in which the effective resistance was lower than the critical value where self-oscillation takes place, we would have a receiver capable of enormous RF amplification.

Super-regeneration is the answer, credit of which must go to E. H. Armstrong, and consists of periodically varying the negative and positive resistance of the circuit, the balance being in favour of an average positive resistance. The circuit will not self-oscillate of its own accord, but during the intervals when the resistance is negative induced signals will build up to enormous amplitudes; the am-

plication factor can be of the order of millions. As the average resistance of the circuit is positive the oscillations will naturally die out when the input signal is interrupted and faithfully follow changes in its amplitude, but at an enormous amplification.

Variation in the resistance of the



RECEIVER.

V1 '30

V2 '30

V3 '33

C1 .0005MFD

C2 .000025MFD

C3 .00001MFD

C4 .006MFD

C5 .1MFD

C6 1MFD

R1 2MEG

RFC 35 turns 30 DSC on 5-16 in. rod, spacing 1-16 in.

L1 2 turns 16 tinned copper wound on a fountain pen.

L2 7 turns 16 tinned copper wound on a fountain pen.

L4 750 turns 36 DSC

L5 1250 turns 36 DSC

Wound in double slotted formers. Get three 1½ in. cardboard discs and two ¼ in. lengths of ⅝ in. diam., wooden dowl. Drill a hole through the centre of the discs and dowl. Assemble with a brass machine screw.

Commencement of plate coil L4 goes to plate, finish to B4.

Commencement of secondary L5 goes to earth, finish to grid.



circuit C1, L1, is obtained by periodically varying the potential on the grid of the tube V1 by means of a low frequency oscillator, L5, C6. When the oscillatory potential of the grid of V2 is positive a conduction current flows from the tuned circuit, which increases its effective resistance. During the other half-cycle, when the grid of V2 is negative (Fig. 1), no conduction current flows, the circuit L1, C1 having a very low resistance, which is determined by the regenerative effect produced by the plate coil L2. It is at this period that signals build up and are rectified by the detector.

As the eye cannot follow rapid changes in anything, so does the ear act the same way, and one cannot detect the intermittent stoppage of signals at each half cycle of the low frequency oscillator or quencher, as it is sometimes called.

There is still a lot of controversy as to what should be the frequency of the quencher. However, a lower frequency than 6000 cannot be tolerated, as it is difficult to filter out after rectification unless at the expense of reproduction. The quencher should not be made to oscillate too fiercely, as a whistle will be obtained, and so spoil reception. The great drawback with super-regenerative receivers is the high background noise commonly referred to as hiss. This is brought about by the terrific amplification obtained, even the noise of the electronic stream being amplified.

It will be observed that the plate coil of the detector in my receiver is three times larger than the secondary, for reasons which I will explain. Nearly all super-regenerative receivers suffer with a falling off in amplification, mostly at the top of the band, follow the coil information faithfully, and this fault will be overcome.

Series and parallel tuning have both been tried. I favour parallel tuning. It is advisable to mount the controls back from the panel and extend spindles with  $\frac{1}{2}$ -inch bakelite rod.

Do not have aerial condenser in too far, as this damps the circuit down and tends to stop it oscillating. However, the more capacity in the stronger the signal.

The detector coils are mounted into phone tips, which in turn plug into pin jacks mounted on a strip of bakelite. These coils were made plug-in type, so as to be able Qsy up to 2ME

on 7 metres. The distance between coils is  $\frac{1}{2}$  in.

When a carrier is picked up the background noise will suddenly drop in intensity corresponding to the strength of the signal.

## The Transmitter.

After several months of experimenting I have come to the conclusion that there is only one method—push-pull—in whatever circuit you fancy, preferably T.P.T.G., and, of course, the constant current system of modulation.

Under-modulation appears to be the weak point with most newcomers to 5MX. I cannot stress this point too much. If you want to modulate 171A's in P.P., it is useless using any tubes smaller than 247's, and then at least two in parallel, three if your modulating choke will take it and power supply will handle it.

It is useless having a strong carrier of, say, R8, when your modulation is only R1.

I have in mind the very interesting tests carried out by 2SA and 2NO from the city and at my home at Rose Bay last September.

I could not detect 2SA's carrier at all, and yet when he spoke into the mike he came in R8 (air line distance, about five miles). If I remember rightly, he was using a pair of 171A's in push-pull modulated by 249's in parallel.

2NO's fone was also R8, but his carrier completely knocked the noise in my receiver to nothing when he was not modulating, but just had the carrier running. Had the need been, he could have lowered his oscillator voltage and still modulated deeper.

There is no need to worry what sort of a note you have, as the beauty of the super-regenerative receiver is that it eliminates all the "muck."

I am afraid there would not be many on 5MC if reception had to take place with a straight-out regenerative detector.

During our tests I tuned to 2SA, R8, and pulled out the quencher. Lo and behold, his signals dropped to R3, and absolutely unintelligible. Of course, one could expect distortion, as the detector was still oscillating. Only for that I probably would have lost him completely.

Not much need be said about the xmitter, except to remember to let your modulators go flat out.

Beware of the clowns who advise

you to put more than 300 volts on the plates of your 247, 59, etc. They simply will not stand it. They appear to, but at the expense of their emission. I know. I lost six 247's before I realised my mistake. Caution! When using pentodes do not have the auxiliary grid voltage too high, as secondary emission will take place and spoil the reproduction. The screens should never become red.

There is no need to use batteries for the modulator bias, as ordinary bias resistor can be used from the C.T. Be sure to by-pass this with a 10 or 20 mfd. electrolytic condenser, also the dropping resistor of the oscillator, with at least 1 mfd., and likewise the screens. If all this by-passing is done, you will get an extra lift of from 8 to 10 db.

Keep your oscillator plate voltage as low as practicable. Always remember a hefty carrier gets you nowhere, if you do not completely modulate it.

## Receiving Aerials.

One aerial is useless owing to the changing polarisation of the waves. Best results are obtained if at least three aerials are available. I used a multiswitch, to which was coupled an 8 and 16 ft. vertical, also a 6 in. vertical; last, but not least, an aerial having horizontal and vertical positions, such as an inverted "L." As our tests used to occupy anything up to three or four hours daily, I observed remarkable results in reception. I would go over to 2NO on my 16 ft. aerial, and a few minutes later

over to 2SA. I would have to get on to the 8 ft. vertical for him. Tomorrow it would be quite the reverse; in fact, it changed hourly. Sometimes I would have to receive them both on the "L" type.

During one period I received 2SA and 2NO, R6 on the 6 in. vertical. I cannot say how the "Pickard" is for reception, as I have never tried it. However, I believe it is O.K. It certainly works well as a transmitting aerial, although I got best results by using an 8 ft. 5 in. "Zepp" (vertical) with 12 ft. untuned feeders, tightly coupled with the aerial coil to the tank circuit. Feeders are spaced 4 in. apart.

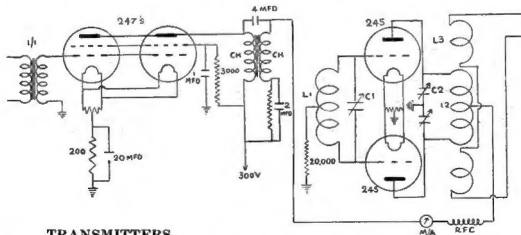
The best radiating position for a 5MX aerial is very critical, and it is advisable to tune gradually from one end of the band to the other, at each Qsy noting the brilliancy of the lamp in the wave-meter when brought into close proximity to the aerial.

If a slight glow is observed modulate with music, and if the lamp does not treble in brilliancy you are not modulating deeply enough.

The milliammeter in the plate ckt of the oscillator should rise each time the mike is spoken into. If the meter kicks down, you can be sure your modulation is carrying distortion.

The circuit of my receiver and xmitter is shown.

Self-quenching detectors have not been mentioned. These cause bad interference by radiating a very strong carrier.



## TRANSMITTERS.

- L1 5 turns 16 tinned copper wound on fountain pen, spaced  $\frac{1}{8}$  in. between turns.
- L2 2 turns 5-32 in. copper tube.
- L3 1 turn 5-32 in. copper tube each end.

- C2 .0005MFD Split Stator, approx. .0002MFD each side.
- RFC 36 turns 28 DSC on  $\frac{1}{8}$  in. rod, spacing diameter of wire.
- C1 13 Plate Midget
- CH 2 single Philips power chokes.

# An L.C.R. Bridge

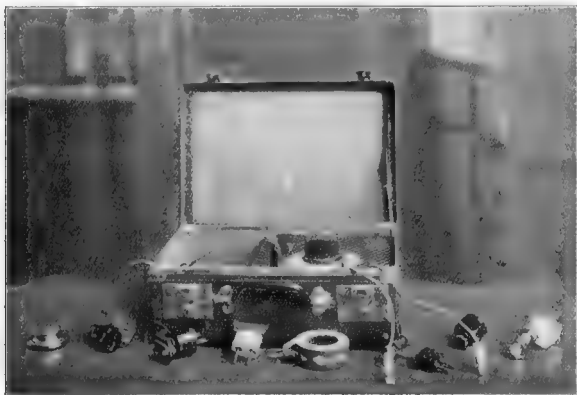
By VK3AH.

How often has every ham had the need of an instrument that would measure the resistance of an unknown resistor or the capacity of an unmarked condenser? The usefulness of such an instrument around the shack is beyond words, but few of us have ever got beyond the "wishing" stage. However, one night, I got the urge to investigate further, and the following little job is the result.

It can be made from gear obtainable in nearly every junk box, and only uses one meter, and that a mere potentiometer. The only other essen-

the better its quality the more accurate results will be obtained. It must be fitted with a scale, and as most potentiometers are swung through about 270 degrees, provision must be made to exactly cover this range. It should be divided into any number of equal parts, 50 in the writer's case.

In operation, a known value of resistance, inductance or capacity is connected to the terminals at K and the unknown between the terminals at X. The oscillator is switched on, when the sound will be heard in the phone. Adjust R until the sound



tials consist of a resistance, capacity and inductance of known values. From the circuit, which can be seen in the lid of the case, one recognises the well-known Wheatstone bridge, excited by an audio oscillator. The filament rheostat is included to vary the pitch of the oscillator. The potentiometer, a wire wound of 10,000 ohms, is really the heart of the bridge, and

disappears, and note the position of the pointer. It will now be dividing the scale into two portions—A and B. (See circuit.) The unknown value can now be calculated by the use of one of the following formulae:—

For resistances and inductances:—

$$\frac{A}{B} = \frac{X}{K}$$

For capacitances:—

$$\frac{A}{B} = \frac{K}{X}$$

For example, if we want to calculate the resistance of a valve filament, the filament pins are placed between the terminals X and a resistor of, say, 20 ohms, at K. The pointer is adjusted until the howl disappears. Say we find there are now 30 divisions in A, and 20 in B. From the formula we get:—

$$\frac{30}{20} = \frac{X}{20}$$

Thus  $X = 30$ .

So the filament has a resistance of 30 ohms.

Inductances are calculated using the same formula, but capacitances use the second one. For example, say it is desired to find the capacity between aerial and earth.

They are connected at X and a known value condenser of, say, .0001 mfd is placed at K. The dial is again rotated, and this time the signal blacks

out at a point leaving 45 divisions at A and 15 at B. From the capacity formula we get:—

$$\frac{45}{15} = \frac{.0001}{X}$$

Thus  $X = .00003$  approx.

Therefore the capacity of aerial to ground is .00003 mfd.

Some of the items of gear that have been measured by the writer include gridleaks, rheostats, chokes, condensers, capacity between twin wires in lead covered cable, resistance of microphones, comparing audio transformers and headphones, and equalising choke condenser combinations in peaked amplifiers. The writer has the known value components mounted on two pin plugs, for convenience, and leads fitted with alligator clips grip the unknown article quickly and effectively. Although this is not a super-precision instrument, it is an exceedingly useful one, and will quickly establish itself as an essential in the shack of the ham who takes the little time and trouble to build it.

## High Frequency Resistance of Copper as Affecting $I^2R$ Losses

By A. Smyth, A.M.I.E.A.

The tabulation table shows the relationship between the D.C. resistance of a straight copper wire and its virtual or effective resistance at 10 mc. To use the table:—X is given accurately for any size of wire, and frequency from  $X = 1.16 na^2 \times 10^{-6}$ .

a is the radius of the wire in centimeters  $\times 100$ .

Y is related to X in a highly complicated way. Intermediate values may be approximated by interpolation, or better still by graph.

The next column gives standard resistances in ohms per meter, w/Mtr, which, multiplied by Y gives Rn, the H.F. resistance.

### Example 1.

Find the gauge required, so that the H.F. resistance at 10 mc shall not exceed 0.5 ohm for a coil of 8 turns of 8 cm diameter.

Length of wire is  $8 \times 8 = 200$  cms = 2 meters.

Now, permissible resistance per meter is  $0.5/2 = 0.25$  ohm.

In column w/Mtr find 0.214, corresponding to 18 SWG.

### Example 2.

Find the gauge required for a coil of 60 turns, diameter 4 cms resistance 5 ohms at 1000 kc.

Length of wire = 750 cms and  $Rn = 5/7.5 = 0.667$ .

Look under w/Mtr for something less than this and find 0.5793 for 36 g. To find Y for the changed frequency, divide the value of X shown for the gauge in question by  $10^7$  and multiply by the new value of n, in this case  $10^6$ . Then 10.8 becomes 1.08, and the corresponding value of Y is 1.1. Hence  $0.5793 \times 1.1 = 0.638$ , which falls within the limit required.

### Example 3.

Find the effective resistance of a single turn of 8 SWG to work on the 60 mc band.

There is a snag in this question, centring mainly in the leads to the condenser, and is further complicated by the resistance of the condenser plates. Ignoring the latter for the moment, the leads may easily double the effective length of coil simple. For the purpose of this estimation, say the gross length of wire across the condenser terminals is 40 cms.

X at this frequency become  $6X = 28560$ , and Y is then 119.  $R_n = 0.001307 \times 0.4 \times 119 = 0.062$ .

This result would be correct for a straight length of wire 40 cm. long, but under the conditions cited can only be used as a guide. It is further complicated by the fact that when the wire is substantially bent from a straight line the surrounding field is rendered unsymmetrical, and has the effect of still further increasing

its resistance. This factor tabulated under column F, is independent of, and is calculated from, the formula  $F = 7.57 a^2$ . For 8 gauge wire it amounts to 31 per cent., and the figure for  $R_n$  must be modified accordingly,  $R_n \times F = R_{ns}$ .

Thus  $0.062 \times 1.31 = 0.081$ , a total increase of 156 times the D.C. resistance.

Inspection of the table shows that at 10 mc the resistance increases so rapidly with larger diameters as to nullify the ordinary advantages of heavier copper altogether. This difficulty can be surmounted by using a cable of insulated conductors.

## Conversion Formulae.

Ohms per inch  $\times 39.37 =$  ohms per meter.

1 inch  $= 2.54$  cm  $a/254 =$  inches.

S.W.G.	a	a <sup>2</sup>	x	y	$\times w/\text{Mtr.} = R_n$	$\times F = R_{ns}$
50	0.125	0.0156	0.181	1.008	33.46	33.56
47	0.2504	0.0626	0.726	1.041	8.365	8.72
44	0.457	0.208	2.41	1.33	3.2675	4.35
40	0.6906	0.372	4.32	1.7	1.452	2.47
38	0.762	0.581	6.74	2.08	0.9294	1.93
36	0.965	0.932	10.8	2.62	0.5793	1.52
33	1.27	1.61	18.75	3.35	0.3346	1.12
30	1.575	2.485	28.8	4.0	0.2176	0.87
28	1.88	3.54	41	4.75	0.1527	0.725
24	2.744	7.52	87	6.86	.06913	.474
22	3.55	12.61	146.5	8.9	.04268	.378
20	4.572	20.9	243	11.2	.02582	.29
18	6.096	37.2	431	14.7	.01452	.214
16	8.128	66	765	19.5	.008169	.149
14	10.16	102	1180	24.3	.00523	.127
12	13.21	175	2140	32.7	.003094	.101
8	20.32	412	4760	48.8	.001307	.0637
2	35.05	1230	14300	84.5	.0004392	.0371
7/0	63.5	4040	46900	153.	.000134	.0205
1in. Rd.	127	16700	194000	311.	.0000337	.0105

## HARMONICS.

VK3WL recently received from the D.A.S.D. (Germany) a bundle of 250 QSL cards printed in both English and German, such cards to be used for the acknowledgement of reports received by 3WL. The letter with the cards begged Jack to accept them as a token of their appreciation for the support and encouragement he has always given their listeners in sending his card in return. Evidently our friends,

the D's, are possessors of the true ham spirit, and some VK hams would do well to take a leaf out of their book. Remember, the BCL of to-day is the ham of to-morrow.

\* \* \* \*

Two of the Tassie hams, VK7RY and VK7CD, have been doing things lately. 7RY having acquired an ow and 7CD transferring to Melbourne will soon be a VK3. Congrats.; both made a wise move, hi?

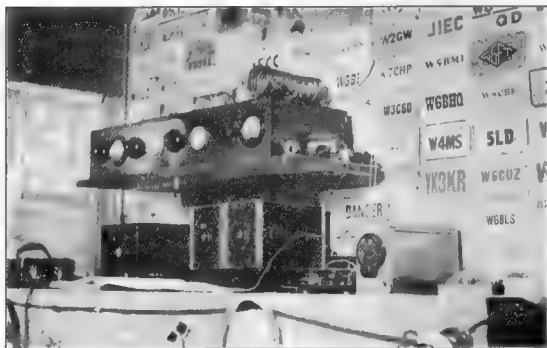
## Station Description

VK3DM was issued a licence in February, 1932, and the first QSO was made during March, using a 210 in a Hartley circuit. This was later changed to a pair of 245 in Push Pull, T.P.T.G. No DX was worked until January, 1933, when a three-stage CC outfit on 7050 KC was built. With this rig Europe, Asia and America were QSO-ed. Later a change to a four-stage transmitter, using three

AC electron coupled Monitor is used with a '24a oscillator and a '56 linear detector. The antenna is a half wave Zepp, with quarter wave feeders and runs due east and west.

QSO's include 180 VK and ZL and 250 DX contacts, and the best reports have been R8 from Europe and America.

The power supply for the transmit-



'47's with a '10 P.A. With this rig all W—VE, Europe and Asia have been worked. The best period so far was between October and December, 1933, when 120 European stations were contacted; 30 countries in 5 continents have been worked, making W.B.E., but South America is still required for W.A.C.

The receiver is AC operated, and consists of a '58 TRF, '57 detector, and '56 impedance coupled audio. An

ters consists of four separate packs, one for C bias, one for CO and FD, one for PA, and the other for buffer. Keying is in the centre tap of the FD and a '50 keying tube is used to eliminate any possibility of clicks to nearby BCL's.

Alterations at present in progress include using '10's in push-pull in the PA stage of the transmitter and a single signal super.

VK3DM always QSL's and appreciates reports. He is also glad to exchange photos with other hams.

## WHAT HAPPENED TO MATT.

Dedicated to QYL hams and those  
troubled wid YLitis.

Hark to me, Hams, es the tale that  
I tell

Of a real gud OM that had gone  
QYL.

There's a tear to the tale, es a  
moral as well;

Es 'tis stick to ur key es hang the  
YL.

Now Matt was a ham justly proud  
of his fist;

He cud do 30 per, es it came frm  
the wrist;

His note was T9 es it busted the  
cans

Of real DX chasers in far distant  
lands.

His rig was a "trouncer" frm peel  
to the core.

Es his shack was the "berries" frm  
roof to the floor;

But those pure xtal sigs hve long  
since QSC.

Es when Matt rebuilds 'twill be  
sure QRP.

Es hrs why ole Matt was derated to  
this,

Es hrs the result of his ex YL's  
kiss!

She had lived nxt to Matt fer a  
fortnite or more,

Es one da she knocks gently on the  
shack door.

Wid a smile that gets Matt all hot  
es upset,

She sez, "Please cud u look at our  
radio set?"

Wl Matt shud hve seen what the  
YL was worth,

For she'd shorted the Aerial onto the  
Earth!

Es wid soft starry eyes, es still  
smiling as ever.

She tells pore ole Matt that he's  
awfully clever.

Es Matt, being human, succumbs to  
all this;

Es is perfectly blinded by love's  
untrue bliss.

The disease got him badly, as usually  
chances;

Es he QRT skeds to go pictures es  
dances;

A month of these capers showed up  
on Matt's face,

That he'd sold half his gear just to  
keep up the pace.

A little time later—a week or so  
more—

He cashed in his "bug" es 'twas the  
last straw;

So Matt thinks things over, con-  
sidrble harried;

Thus far hvng gone, decides to get  
married!

A nite or two later, while holding  
her hand,

Suggests that she fall in wid what  
he had planned!

Wl she looks sumwhat startled,  
sumwhat like a rabbit;

Es then she recovers, es lets pore  
Matt hve it;

Es laughing R max was the way she  
commenced;

Es sed that she'd ne'er seen a  
fellow so dense;

Es in proof that she'd had pore ole  
Matt on a string,

Produced frm her hndbag a swell  
diamond ring!

Es, minus a tremor, she quite calmly  
sed

That she'd promised to marry a  
fellow named Ted;

So widout further rag-chew Matt  
bied his way hence;

Es, on the way home, knocked her  
cat off the fence. . . .

So the curtain falls down on the  
heart-breaking scene

Of Matt's eyes on the holes where  
the meters had been.

So heed ye this warning, ye QYL  
hams,

Es stick to ur seats in the trains  
es the trams.

For, though chivalry's rite in the  
sense of the wrd,

Its real name is trouble wid ex-  
penses incurred;

Though condx against Matt were  
unfavorably weighted.

An exceptional case, u mav sa, hr  
related. . . .

U cn take it frm me that it's  
wisest to mend,

Fer results are all sumwhat tho  
same in the end;

Es, as sure as the Heavyside Layer  
above,

U can't run a ham-shack es fool  
round wid love!

## NOTES ON NOTES.

By QRZ.

Judging by the notes heard from most of the new hams starting up it seems as though the handbook isn't read as it should be. I guess the OM from QST would find plenty to write about over here.

A punk ripply RAC note was heard calling ZL2AB and signed VK4US.

8ZC could do better than that RAC note too.

Another 4 in the shape of 4JJ was heard with rotten RAC.

An R9 signal as broad as the proverbial elephant's back, and whining like a Yank, turned out to be 3XF.

ZL3CN was heard on 20 trying to imitate a power leak, and he was very successful too.

ZL2FV also helped to keep up the ZL reputation for RAC notes.

And Don B. Knock himself was heard on 40 with a note that was probably good on 5 metres some years ago.

Rather surprised to hear 7CD with a rotten note after his usual PDC.

Surely 2BK could manage a better note than the one I heard.

2YL must blot out plenty DX for the early morning Sydney gang with his awful note.

8NT—the NT being for the "not too" in "not too good."

Listen to 3BJ and hear the best note in VK. New hams, please note.

2KE was heard calling ZL2GN with ripply RAC and plenty bumps. What must BCL's get?

2FY seems to alternate between his decent T9 signal and an attempt to imitate those Yank xtal RAC notes. I would like to know just which one does get out the better.

2XM and 2XF also using terrible creations.

2ED spoilt FB signal by calling NNGT. A little bit of imagination makes it CQ.

2SQ outshone everybody by coming on with PAC.

2DR heard with a rattly type of RAC.

3OR forsaken xtal for a very broad DC note.

For long CQ's the EA's are hard to beat. CT1JW also calls for five minutes without signing.

2IN another RAC fiend. 3XQ ripply RAC.

W1DHE had that little bit of imagination that made CQ DX out of YQ XU, as sent by 5KG.

What must 5WP do to the local boys? Even from this distance plenty of bumps can be heard several degrees either side of his wave.

4EL makes himself a nuisance with a very chirpy PDC note.

Why can't fellows on self-excited quit blooping all around the band when a contest is on?

Seems to me that the self-excited motto is "Power, and still more power," and "Don't worry about the note."

73 now, and please don't wear out the RAC keys next month.

QRZ.

## CENTENARY CONTEST!

By VK3ML, Manager Contest Committee.

When we announced our world-wide contest in the last issue we held back the prizes that were to be won by the VK hams. We told you all about the super-attractive certificates that were to be awarded, besides the other valuable prizes. Next month you will see photographs of all the prizes before your own eyes. You will see an 852, a TB 1/75 and an 800 labelled first, second, and third prizes respectively! What a goal to strive for! There will also be a photo. of the certificate award, which is one that any VK ham would be proud to have hanging on the wall. It looks the part; what with the shade of Batman casting an eye over old Melbourne, and with the excellent colour printing of the words "Melbourne Centenary International DX Contest 1934," etc., it is really one of the best ever offered to the amateur.

We are greatly indebted to Amalgamated Wireless of Australia Ltd. and Phillips Lamps Ltd. for their generosity in donating these coveted valve prizes. Here is your chance to fulfil your heart's desire to win a REAL tube.

Opposite, we are printing a copy of the log design that must be returned after the close of the contest. It is quite simple and needs no enlarging. Start drawing a few dozen of them now. They'll be wanted! The world has already learned of the W.I.C. October Contest.



## LOG: Melbourne Centenary International DX Contest, 1934

Name: \_\_\_\_\_

Address

Callvign

## Operating at

## Stations

### Transmitter.

**Input to P.A.**.....

Receiver

### Type of Aerial

## Stations

[illegible]

To be multiplied by

=Grand Total)

The following is a description of my Station:—

I hereby certify that I have operated during this contest in accordance with the rules laid down, have adhered rigidly to the regulations governing amateur radio in my country, and that the score and the points set out above are true and proper.

Signature of Operator: \_\_\_\_\_

## OLD BOY DOES A BIT OF EAVESDROPPING

Not owning a xmitter, but being an enthusiastic ham listener, when approached by the editor to scan the bands and give my impressions I readily fell in with the idea.

Starting on the 40 band one Sunday morning at 9 a.m., the first ham was 6MN. This fellow going hot stuff on RAAFWR work with 6DJ and 6LK. Now who is this bird with a f.b. xtal. Oh! 6RA and he wants to try fone with MN. Good, says MN, and I listen closely on my super short waver.

A few words come in O.K., then nothing but grunts, so let's see what MN has to say. Nothing doing says he, but my word this fellow (MN) has some kick and f.b. fone.

Down the dial and here is another on fone. Hullo CQ, VK6CP calling. Come in boys. Ah, he has landed someone, but this chap's fone is weak. Oh, it is RW down at Wagin, but his sigs. are hard to bring up. At times they are good QSA5, R4, but quickly go to pieces. These two hams seem to be always on fone on Sundays, and from what I can hear they are piling up a lot of dope on skip and fading.

We will leave them to it, and now here is a f.b. IC.W. sig. all the way from RT at Grenough.

Next please.

Old 6DA with a f.b. xtal. calling CP, and gets him. Sorry CP, but I must say it. Do you live in your shack on Sundays?

Well, boys, on again during the week, and CW is the order of the nights. CQ DX. Ah, this must be GF. Ye gods, no! It is KB got the craze, so, boys, say good-bye to him for a while.

Well, cheerio, gang, and look for me next issue with some more jibes.—Yours stickingly,

OLD BOY.

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## ATTENTION, COUNTRY HAMS!

We are continually receiving requests from country and outback hams for more dope on battery and M.G. powered transmitters. They say that magazines to-day are catering for the chap who has A.C. laid on, and tend to forget the man who hasn't a power

line for miles around. Yes, we quite agree, too. The modern trend of progress points to enormous receivers and higher-powered transmitters, whilst those who have not either the power or cash to run these things are forgotten.

Now, we in the city really cannot imagine what the country man has to put up with, and we marvel at what he actually really achieves with what gear is available. It would be ridiculous for us to write pages of dope on suitable country stations. If we cannot put ourselves in their shoes, how on earth could we write from their point of view? Therefore, we appeal to all you country chaps to send in full information on your gear so that we can sort them out and write up some really hot country-type transmitters. The essentials are: Power, type of transmitter, valves employed, and general information showing relative merits of each component. These will not be printed as station descriptions, but you can feel that by fulfilling this request you will be helping some individual that has not had the benefit of your experience.—Tec. Ed.

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To the Editor.

Sir,—On behalf of the hams in VK5 I would like to say that I think the article, "Random Ramblings," by "QRZ" in last month's "Amateur Radio" rather overstepped the mark in ham spirit and the good fellowship which exists in that fraternity.

The impression I gained from the article was that VK5 hams are practically the only ones on the air in Australia who are guilty of poor notes and signals. Although one or two stations in other States were mentioned, more than half the article was devoted to a sarcastic criticism, which was in some cases quite unjustified, of us local chaps' notes, phones, keying, and signals in general. Now, isn't that a bit unfair?

One only has to put the phones on any night in the week to hear dozens, and in fact scores, of hams in VK3 and VK2 absolutely blocking the air with broad, unstable signals, with notes varying from anything between 16 to 500 cycles. Why, then, level such unfair criticism at our State, which, I venture to say, has a lower percentage of poor signals on the air

than any of the larger States, which "QRZ" barely mentioned?

It appears to me that "QRZ" for some inexplicable reason has some dislike towards us VK5 hams, a feeling which is contrary to all the rules of ham radio.

And, in conclusion, "QRZ," come forward like a true ham and meet us face to face on equal ground. No

author who believes in the sincerity of his writings would dream of using a *nom de plume*, and I should like to see further articles from your pen signed like this letter is.—Yours, etc.,

ERIC HALLIDAY,

South Aus. Editor of "Amateur Radio."

Wonga avenue,  
Hectorville, 20/3/34.

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# How to Win the Contest

By VK3WL.

During the four week-ends of October, 1934, for the first time in history, an international DX contest will be staged by Australia. Preliminary details of this test, "The Melbourne Centenary International DX Contest," were published in March "Amateur Radio." How were these details received by you, Mr. Ham? Just how, is most important to Australian radio and its prestige internationally. We are inviting the whole world to QSO us during this contest; we have made a sked with creation. It is up to every Australian amateur who has ever worked one single station outside VK to give this test his wholehearted support. I have yet to meet a ham who was not even slightly interested in DX contacts; here is your opportunity, the whole world straining its ears for the tiniest chirp from VK. It is vitally important to the success of Australia's first international contest that at least 100 VK stations are on the air. Australia, of whom you are all so allegedly proud, will look very small fish if a mere dozen or so VK stations take an active part. We cannot expect any interest internationally if the available VK's can be quickly worked; nothing palls so much as hours of fruitless effort. It is up to everyone of us to give the test all the time we can possibly spare. Why shouldn't you take part; are you afraid you will make a poor score? A pretty flat excuse really. Any man who is afraid to take a whipping hardly merits the name of "Aussie." If you are one of those people who have a selfish nature, like my own, and like to think they have a

chance of ultimate success before they will take part in any contest, I am prepared to help you, if it is possible for me to do so. The Editor of "Amateur Radio" imagines that I have the "good oil" on how tests may be won, and has honoured me by requesting that I disgorge the secrets, hence this attack on the ancient mill. As to whether there are any secrets of success in tests I cannot say, but I can tell you what I intend to do about winning this contest, but I do not think it necessary to win a test to get a maximum of enjoyment from it. It is quite a common cry nowadays to urge hams to experiment. "Forget this eternal CQ DX," they tell us; the DX hound is castigated on every possible occasion. I have always been somewhat amused at wails along these lines. Look the world's or VK's best DX men over, I cannot call to mind one of the dozen or so I have in mind who is not a born experimenter. DX, over a period, is no fluke, nor does luck enter largely into the picture; it is mostly cold, hard arithmetic, and demands immense attention to detail and tons of concentration. The DX hound must be a student of conditions, and is always applying the latest technique of radio to his transmitter and receiver, and he is eternally at his antenna trying to improve his results. I could relate many anecdotes of VK5HG, VK4GK, VK2NS, VK7CH, showing a passion for small details that is almost laughable. "Forget DX and become an experimenter," very amusing, really. Therefore, the first secret has been given—if you would win a test you must work hard. Certain

essentials must be attended to; in my opinion (I am probably wrong) they are, in order of importance—1st, the antenna system; 2nd (a) a good knowledge of conditions in your particular locality, and (b) the tactics you adopt during the contest; 3rd, a good receiver (the better the better); 4th, the transmitter.

I propose to take them in the reverse order. Next month I will describe my transmitter, which may be a bit unusual, according to Australian standards, but is certainly up-to-date, for operation in a district infested with xtal BCL's makes practically perfect clickless keying an essential for test work during BCL hours; a system successful here will also be described. The following month a receiver tested under gruelling conditions, and proved a trump. It may be necessary for you to operate in a district alongside half-a-dozen high powered stations, whose QRM individually is sufficient to block out the whole band; this receiver has come through such a test with flying colours. Then I can only tell you what conditions may be expected in VK3, and when you may expect to get QSO, different parts of the world from VK3, and how I propose to utilise that time. Whether my ideas will be worth while will be for you to judge, but if you have never previously essayed a test perhaps my previous experience may be helpful. Then, finally, and most important of all, your antenna. Honestly, I do think quite a few hams of my acquaintance, who bemoan their lack of DX, could substitute the family clothes line for their present antennas, and get better results.

Several antennas will be discussed, and one of them should suit most everybody. It is useless trying to shoot rabbits with an unloaded gun, or one aimed in an opposite direction to the aforesaid rabbits. I will endeavour to assist you to aim your gun in the correct direction, so you may shoot a maximum of DX rabbits. Please do not think I imagine myself a paragon of test work; far from it. I get immense pleasure from a contest, and I know you will if you will be serious about it. To be a success it is not essential to be really QRO. VK3KX, a new man to tests, used 600V to a pair of 46's push pull

in his PA during the Yank test, and with a slice of luck would have been the winner for VK. VK3MR, also a test novice, is apparently the winner; previous experience also seems to be unnecessary. VK5HG, Australia's DX king, uses a modest 50 watts, 600 v on a pair of 210's. VK4GK, one of VK's most successful test men, is content with 50 watts. If I can get a KW out of my TCO 4/10 with 600v on its plate, I most certainly will use one KW, otherwise I will have to be content with lower. Therefore, any of you have sufficient power. The receiver will not be expensive, and is really the minimum in efficiency that any ham should be satisfied with. Give it a try, just this once, in VK's first international effort, and I know you will enjoy every minute of it.

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### HAMADS

Payment in Advance.

Rates.—To Members of W.I.A. and Affiliated Bodies, 2d. per line or part. Non-members, 4d. per line or part.

---

QSL CARDS, printed by a HAM. Be sure of a good job. One colour, 250 8/6, 500 12/6; two colours, 250 11/, 500 16/.—3RF, 42 Orrong cres., Caulfield.

---

Rush your order for QSL CARDS to A. R. Cook, Printer, Mordialloc, S.12 (Vic.).

---

Don't lose DX through commercial QRM. Have your crystal ground by VK3WL. Single slabs 15/-. DX getters, set of two, 25/-. Satisfaction guaranteed.—VK3WL, Coburg, Victoria.

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### HARMONICS.

The Birchip gang are still waiting to hear 3TH's super 200-metre fone xmitter. Won't she mote, George—or are you saving it up for the competition?

# VK3 SECTION NOTES

## Key Section

(Conducted by L. T. Powers, VK3PS.)

It seems that radio amateurs do not resemble fishing fans. A fisherman will stand up any old time and tell you of the fish that got away, but we have great difficulty in getting hams to tell their experiences.

After much persuasion 3HF gave a very interesting talk at the last meeting on his experiences with the MacKay Expedition, and in past months other members have been called on to give talks on various phases of the radio game, but so far no one has volunteered to perform this duty, which has made recent meetings even more interesting than usual. Some of the gang must have known some strange happenings that would be of interest to the others, so how about coming forward and telling us about them?

At the present time the forthcoming Centenary seems to be the most popular topic of conversation everywhere. Everyone seems to be looking to it to finally end depression and put us on our feet again. There was a stop-press note in last month's issue that we have some stickers available for QSL cards. They are quite attractively coloured, and we can all do our bit towards the good cause by seeing that they go on all overseas QSLs as far as possible (we could only get 2000). We will be glad to send some along to anyone who can use them.

Apparently our hot spell during the W/VE test was not generally appreciated, as there have been moans all round about QRN, though, no doubt, some good scores have been piled up. Incidentally, 5LD was in VIM during that week, and said he much preferred 109 deg. in Adelaide to our modest 103 deg.!

The proposed Centenary Contest seems to meet with general approval, and the prizes are well worth having. It will be well to remember that prizes can only go to financial members of WIA or affiliated bodies, so see that you are financial when the test comes off, otherwise you will have to forfeit that 852.

Starting on May 9, the Institute is running an AOPC class under the able guidance of 3BQ and 3UI, and as the numbers are definitely limited it is advisable, if you know anyone who wants to attend, to tell them to apply to the Secretary WIA as soon as possible, as there are already a good number of applications in and some may have to wait till the next class is held.

As the next meeting of the section would normally fall on the last day of the Easter holidays, it will be held on Wednesday, April 4, instead of on the Tuesday.

## VK3 Phone Notes

The last meeting of the phone section took place on Tuesday, February 27. It was quite well attended, and the Allocations Committee received a record number of applications for frequencies. Maybe it is "competitionitis" which is prompting the phone gang to extend their efforts.

It was not until the meeting had actually commenced business that 3TH noticed, in our midst, a visitor in the form of Mr. Bert James, of 3LH fame. However, better late than never, Bert was duly welcomed, etc.

The members of the Publicity Section (as the Key Gang call us) were reminded that the new A.O.P.C. class would be commencing in April, and to give all our prospects ample notice, as the maximum allowable under this time will be thirty students. So all interested should apply for enrolment early, as candidates will be put on the rolls in order of application.

Phone men are reminded to make announcements to this effect.

On the subject of the competition open to country and town phone stations, the committee met on Tuesday, March 6, when a discussion took place as to rules and regulations to be decided upon. 3JB produced a copy of the conditions which were drawn up on the occasion of the last phone competition. 3TH went through this item by item, and a successful set of rules was drawn up, embodying all the experiences and advantages gleaned by the last effort and omitting the unwanted parts. I think 3TH has

been thinking competition, morning, noon and night, as he certainly has ideas for all branches of the job thoroughly thought out. Handicapping, according to the 3TH method, is perfectly simple, and it is up to the phone gang to put their heads and transmitters together, produce some really FB sigs., and give the judges a tough job.

Quite a lengthy discussion took place after a suggestion had been made that one station go on the air on a certain night, of which the New Zealanders would be advised, to make short transmissions on certain of our allocated frequencies to determine the one most free of interference from the New Zealand observation point. However, we later thought this rather unnecessary, and perhaps further discussion may be made at the March phone meeting. It seems that the majority of the New Zealanders experience the brand of interference mostly arising from power leaks or other man-made sources, and the intensity variation between about 1350 kc. and 1232 kc. would not be worth consideration.

Then there is the question of American stations coming in on top of us in New Zealand, or vice versa, but we understand that the Americans, particularly, that are heard there now will be fading out completely by about the competition period.

By the time these notes appear in the April issue of "Amateur Radio" we expect all entrants for the competition will have made application, namely, at the March meeting, Tuesday, 27th. So I suppose we shall hear signs of activity in the cleaning up line, and general improvement efforts of a gradual nature.

Very much more work was done at the last meeting of the competition committee than heretofore, and there will be much to go over at the March phone meeting, so April will see things going with a real swing.

Cheerio, es 73's.

3DH.

## COUNTRY NOTES

Things in the bush have been relatively quiet during the past weeks, but the same old gang seem to blister the ether consistently, despite QRN and the always present local QRM, which the prevailing heat wave has been responsible for doubling—every

fan, refrigerator or what-have-U has run non-stop for some days. Talking of QRM, I know of one fan (and so does 3LH) who can be heard over a radius of a mile.

During last day or so the 3500 band has been fairly active. VK2's are apparently getting their rigs all "het" up for the winter. Heard 2RJ with 2NS present on visit the other night. R.J. said he would not let Trev., "the milk fiend," go home for a day or two, as he had a young Jersey cow "coming in" and wanted NS to try out the milk.

VK5 has started to come in again—worked 5LR and 5QR during the month. The latter is what is known as a "kid belter" (Ed. Dept.), and strikes some queer locations. At present using 1½ watts on phone from about 150 v. "B" watts, and arrives here Q5R7/8. Only a few VK7's heard this year so far—hooked 7RY the other nite and chin-wagged with him about an hour. He is troubled with an elusive hum in speech amp., and guesses he'll have to do a bit of rebuilding. Personally (3WE) some 40-odd phone QSO on 80 for the month, reports varying according to the state of the local DC power supply. Much of the work has been in four, five or six-way hookups, which are proving most popular and enjoyable. Those associated in these hookups during past weeks were 3CE, 3ZK, 3ZL, 3PY, 2HU, 2NE, 3LH, 3CH, 3AN, 3KR and 3WE. 3LH and 3CH spent a few days in town, but brought back no new gear for a wonder. Alf got a "new" car, which is (according to him) the last word. 3KR had a couple of rounds with "Mr. Flu," but emerged victorious. Rumour sees the "Xtal" will return from holidays this week. In the meantime has been punching the key in the Yank test, "just to have an interest and help some Yank win," he says. 3OR heard with usual wallop on Sunday A.M.'s. Leaves on a trip round the Islands end of this month. He has received so many offers to "carry his bag" that it's no use me applying. 3ZL, R9 Telefunken King, has gone back to 333 tinfoil—got all the tobaccoists saving it for him. A new one is 2NE, Mosman, hitting R9 here with good modulation, and usually with a stray YL or so in the shack. Ask him to tell the yarn of the innocent YL of Bondi—he'll send the last word or so on CW. 3AN has improved of late. Stick to it,

Arch. Can't you get a power line out your way? Another newcomer to the north country gang is 3EG, Tallangatta (late 2EG), who has quite a wallop, while 2TH, Wagga (late 2nd op, 2UO), now branches out on his own, and with a breed of modulation that has more tricks than the family mongrel has fleas. The nometer Telefunken experts at 3ZK have improved the rig lately, but Jimmy nearly qualified for wings while en route to Bendigo for the fire demo. Was hanging out door of carriage coming into Kerang, waving to a YL (or was it looking for 3KR?), when he tried to push over the "No Road" sign. The sign wasn't even bent, but Jimmy was—but now R9 again. The Sunday morning QSO's, a la 3KR, 3OR, 3HL, 3CE, 3NN, have again started.

After suffering the Birchip QRM for some months, and hoping it would prove better than Merbein, his late QRA, Herb., of 3LH, now proposes to remove to Sea Lake. 3CE hasn't got that xtal xmitter going yet. But we have hopes before the winter.

3PY not heard on 80 lately, but he, along with 3KU, and occasionally with 3CH and 3LH, annoy or cater for (according to taste) the BCL's on 200 metres.

Well, about QRU for the month. I'll be seeing U.

3WE.

## Western District

The 80 metre band seems to be almost deserted at present, except for a few fone stations, despite the surprisingly good conditions on this band lately.

However, DX conditions on 40 have been so good lately that everyone seems to be there, chasing it. Heard five continents in ten minutes there one night, about a week ago, including that elusive South American, wanted for W.A.C., but nothing could be raised. FM8IH was QSA5 R5, and HC1FG QSA5 R7.

3YL has vacated to Macedon for three weeks' holiday. 3DX has staged a comeback to 40 MX, using two-stage xtal rig coupled to his 200 metre aerial. 3JA, of Warrnambool, spent a few days with the Coleraine boys recently, bringing his RF meter with him. The latter registered over an amp in 3OW's feeders. Jack was far too wary, though, to go home without it, hi! By the time this appears 3OR will be well on his trip round VK.

Keep a look-out for him from PK stations. Believe it or not, old 3NQ has gone QYL, hence his absence from the air.

Returning home at about 1 a.m. a few night ago, 3OW found his two sisters, who were home alone, in a state of considerable agitation. A shower of rain shortly before had shrunk up the cord which brings the self-starter on the engine into action. Switches closed and the engine started up with a noise like the crack of doom, hi! Sisters bravely hopped out of bed and turned off the engine, but couldn't stop the starter, which whirled the works round until the battery went flat. Op has been ordered to take the engine with him next time he goes out, hi!

We were glad to see the fine articles by QRZ in "Amateur Radio." That's just what's wanted, and perhaps he will go one further and mention all stations heard operating out of the band, crystal-controlled or otherwise.

That's all for now. Please let's have your notes, boys. 73 es cheerio.  
3OW 3HG.

## THE ASSOCIATION OF RADIO AMATEURS (N.S.W.)

### ZONE 4

News comes to hand that the W.I.A is running a world contest, VK versus the rest of the world. This is the best idea ever, and should mean wonderful things for Australia. It is up to the gang to get on the air for it. Doesn't matter how many hams there are in each district, or how bad the qrm will be, the only thing which will make it a success will be the loyalty of the gang. To my mind, out of the 1000 odd hams in VK we should have 500 entrants. This is our one big chance to show the world what we can do. Newcastle will be well represented with six or seven entrants.

Another ham has gone west. In other words, got married. 2MT went off the deep end the other day. The boys join in wishing you all the best, Charlie, and hope you succeed in persuading the YF to join the ranks of the hams, too.

2KB is building the perfect transmitter—steel frame, rack and panel, 4 stage—using a 50 wattor to push an 852, with 3000 volts.

2CS is at it again. This time it's to be a pair of 211's, with many volts on their plates. At present he is qrt owing to the early demise of a power transformer.

2OF—well, the least said soonest, etc. DX—he doesn't only work it, but peals it off in huge lumps, 10, 15, 20 yanks in one sitting, and all with a pair of 245's TPTG.

The worm has turned at last, or, should I say, is turning? The long-awaited ss receiver is at last to make its debut to the incredulous Newcastle hams. Next week should see all the critics silenced and 2ZW's new effort blossom forth into something worth while.

We have had 3ET with us during the last month. Herman certainly created great interest during his stay in Newcastle, particularly as regards his code, his first being one of the best ever heard here. Not only did he clean us up in this respect, but he created quite a sensation amongst the tennis fans, many of whom were unable to handle his corkscrew services.

### ZONE 6.

Conditions on 40 metres have been very fair this month, despite a fair amount of QRN. That band seems to be seething with activity, although very little work has been done from this station owing to limitation of power supply.

80 metres has been very quiet, but this last week is reviving. 2NM, as usual, has rebuilt his rig, and suggests some more alterations shortly. 2RJ, of Mandurama (a funny name, but not a bad place), has had his genny rewound, and also rebuilt his gear. 2WH is evidently still on vacation, also 2LM. 2RS is back at "Clare" after a prolonged sojourn near Ballarat. His fone has also taken a turn for the better. Ivan, late 2EG, now 3EG, conducts his business of removals and replacements at Tallangatta these days, where he has installed his gear. He reports FB location for DX, is using grid modulation and fone OK. 2KR, of Gunneday, still QRP 4 watts to 201A; but has

installed new modulator, P625. 2BP, at Hazelbrook, intends to obliterate the band this year. He begged, borrowed, bought or stole a big Toob somewhere, and is saving up to get the gear to feed same. 2QA has laid the foundation stone of another new receiver. Will give details later. 2NS also back after a prolonged absence. Seems to have a new speech amp. Fone is very excellent and natural. 2DR, another 80-metre addict, has been rebuilding, and has a 2-tube electron-coupled receiver. Also uses 46's in transmitter.

73's. VK2QA.,  
A.R.A. Zone Officer.

### ZONE 7.

Conditions during February in this part of the state were most unpleasant. QRN has been generally bad, and DX has been scarce. However, during the early part of March things have greatly improved.

80 metres is beginning to awaken again, although QNR is troublesome at times. Well, the B.E.R.U. test is over, and apparently the winner of the trophy is not in VK this time. The American DX contest is attracting a lot of attention if the QRM on 40 metres is any indication.

Not much news of the gang this month. Guess the YL's are reaping a harvest.

2TH, of Wagga, is active on 80 metres, with a nice hefty sig. Is talking about B class modulation, so we should hear some decent fone from him soon. The WO gang not very active lately on account of the bad conditions.

Jack, of 2EZ, has left this zone, and is now at Killara. Hopes to be going again soon. 2GT has taken over the responsibilities of the QRP Club, and has shifted his QRA to Batlow again. 2PN is on 40 metres, and works spasmodic DX. Ross has had the misfortune to bust a couple of 83 rectifiers, but still manages to keep on the air with his old ones. 2KD heard on 40 metres, with FB xtal sig. 2FZ still raking in DX, and is waiting for cards to get his WAC. 2FI is more or less active when time permits. 2XF heard on R.A.A.F.W.R. skeds. The Reserve is making a start again in VK2. and should be FB when in full swing.



2LB still blowing off steam on 200 metres. 2TZ says he is coming on the air again. What's wrong, Bert, did she give you the cold shoulder? Anyone knowing the present whereabouts of 2TA, 2WA or 2JQ please report. No reward offered.

Well, cheerio, gang.

73. ATHOL (VK2FI),  
A.R.A. Zone Officer.

## ZONE 8.

VK3EG, formerly 2EG, of Quirindi, is back on the air at his new QRA, and is getting out FB. During his first week he was able to get R8 from W2, 6 and 9 dists on 40. He is R7 here on 80; but not audible on 40.

A new addition to the ranks is VK2QD, who has a PDC QRL, and is QRP using a TNT Circuit. Conditions for the first two nights of W. Contest were FB, but QRM a bit troublesome Hi.

Well, gang, am very QRL here this month; but hope to have more rag and rope next issue.

73's to all. NOEL (VK2OJ).  
A.R.A. Zone Officer.

## NORTH SHORE ZONE.

2AG has been on 40 a lot with a xtal sig. Haven't heard from Alan, of 2AH, for some weeks. He has new s.s. super rx. Bruce, of 2BA, has gone to the Islands on board a steamer as purser, and will be off the air for some time. Will let the DX have a spell for a bit. 2DU has been working some DX on 20, including a G. Dud has built a new RX, using 58, 56 and 59, and says sigs are three points better than on his old four-tube battery job. 2GJ has been on 40 occasionally. 2GW is very conspicuous by his absence. Jack, of 2HG, is still working DX late at night, or rather early in the morn. DX at 2HG has been exceptionally good; however, power QRM is causing trub lately. 2HT, from out Cremorne way, is putting out very solid sigs from a Hartley rig. 2HL has been on 80 mx a bit, but is still very keen on .5 mx work. 2HY finds things livening up during the last week on 20 mx. During the B.E.R.U. Roy was using a Zepp for the first week-end. 2JV is still busy studying law at the Uni. 2JY hasn't come on yet, but threatens to do so soon with a brand new rig and plenty of come-back enthusiasm. Paul, of 2KA, has built a new E.C. receiver, and says it's fb plus. 2KA is grit-

ting his teeth over the fact that he didn't bother entering in the ARRL test. 2LD rolled along to the last A.R.A. meeting. He has an 150 watt tube lying cold in his shack, and Len hopes to get it perking soon on the end of a crystal rig. 2LD will be in Jervis Bay by now with a portable, so look out for him, chaps. 2ND is back again from VIB, after absence of about seven weeks. 2OE has been off during the month, and I presume he is rebuilding. 2PV, a new ham from Mosman, hasn't been on the air yet, as he is too QRL Uni. Vale, 2RD, he's married now!!! 2SZ has been on a bit. 2UG is still quiet, but rumours are flying round that he intends to make a come-back shortly. Bill, of 2HZ, seems to be darned interested in Wollongong. Goes down there each week-end, and radio is gg by the board. Tch, Tch. Jim, of 2YC, is the proud father of a brand new junior op. Heard Ian, of 2XC, pumping away at the ARRL tests last week-end. Ian "can work no mean Yank," as the saying goes. 2QO has been heard on 40 with a good solid PDC sig. Max, of 2NE, has a splendid rig, and is concentrating on 80 mx fone at present. 2VG has been the most consistent station on 40, I think.

The Manly district hams are in the notes this issue, thanks to Tom, of 2KM. Here they are:—2HF, a la commercial shortly, has a big rig with two brand new RF meters, in these days of depression, hi! 2UP on xtal now, with a hefty backwave. 2EL uses 247 C.O., 210 P.A., with 90 watts on the poor thing. 2NG plays tennis during the day now, and goes DX hunting during the night. 2KM is working some DX now and again. 2DA not on much, but occasionally makes a great noise with an 852!! 2NB has promised me a station description and photo., but as yet nil to hand. 2QK was hooked to aerial 20/1/34. Xmitter is three-stage xtal of rack type, using 247, 247, and pair 46's in PP as class "B" P/amp. QRA is C. P. Smith, c/o Bank of N.S.W., Manly. 2QK was 2ZZ and 2CP back in the days when valves were placed in cotton wool at night, and is back again anxious to QSO. Bob, of 2QR, has been good enough to send me the following news re doings of the chaps over his way. Here it is:—Conditions on 7 mc are picking up, and W1GMS is coming through here at QSA5, R5/6 at 9 a.m.

Well, now for the Epping district dope:—2NR is leaving for England shortly, and as soon as John can get a couple of 852's he will be on the lookout for all his numerous friends in VK and ZL. 2YR has an Alsatian who instils fear into the hearts of visiting hams. 2ER is going QRO. 2JX is blotting out the Yanks nicely with a T9 xtal sig. 2ZN seems to me to act as technical adviser to all the new hams. 2NP (Chicker), of Gladesville, likes traffic handling, and is very easy to copy. He is an all-round good op, though he is out of work and on QRP. 2DF is rapidly joining the ranks of the phone cranks. 2QR says there are plenty of Yanks at R7/8 here now, and they are all falling over themselves to arrange skeds for the test. So if condx as good as in the B.E.R.U. some fine scores are sure to be made. If anyone is left out I'm sure it's not my fault. Hi!

C U next month, chaps.

DON (2DR).

## VK4 (QUEENSLAND DIVISION)

The monthly meeting of the above Division was held at headquarters, Heindorff House, Queen street, Brisbane, on Friday, March 2, with a good attendance of transmitting and student members.

It was decided to hold the annual meeting on Friday, April 13, and it is hoped that there will be an extra large attendance.

Kindly note that all correspondence for the Institute should be addressed to the Secretary, Box 1524V, G.P.O., Brisbane.

Conditions on the 40 and 80 metre bands have been only fair during the past few weeks, QRN being very solid at times, and making reception very bad. A few of the boys report that European signals have been fair during the early hours of the morning on 40 mx, QRN not being so strong at that time. 20 mx is very patchy, only a few weak signals being heard on this band.

4TS has not been heard much lately; understand Ted is building a new AC receiver. 4ZX has been making alterations to his aerial system; has spaced his feeders about four inches apart, and states that since doing so reports have been much better. 4JF

is operating a portable Hartley at Manly, and is doing fb. 4US reports that he has been landing some good dx in the early mornings on 40 mx; has been working G's, F's, etc., with an input of 14 watts. 4UK states conditions not so good at his QRA; too much QRN, so has taken to grinding xtals until conditions improve. 4WT has been spending a lot of time on 20 mx, and says that during the B.E.R.U. test he was able to land G's like shelling peas. 4LK and 4RS are both putting out very nice signals, and are heard often in VIB at R7-8. According to photos. seen recently, both of these boys have very neat stations. 4UU puts out a very hefty signal, and seems to have no trouble in landing the Yanks. 4JB still QRL amongst the sheep out Cunnamulla way; expects to be back at his QRA in a few weeks' time. 4GU been QRL, making alterations to his shack. During the heavy rain of a few weeks back Dick's OW had to come to the rescue and save his gear from getting washed away. 4RC intends building up a MOPA at an early date; says he is getting a bit tired of the Hartley. 4RV, of Cunnamulla, reports that conditions suddenly took a turn for the better on 20 mx, and he states that the strength of signals was as good as he had ever heard at his QRA, countries worked being SM, PA, and several G's. 4GS and 4JN are both located on the 200 mx band. 4LS is now living at Toogoolawah, and expects to be on the air again very shortly. 4GK, of Wynnum, appears to have done well in the recent B.E.R.U. contest, having knocked up over 650 points during the senior contest. However, "Mac" had the misfortune to become ill during the first night of the contest, and was forced to have a spell. 4EL was heard quite a good deal on 20 mx during the B.E.R.U. contest, and certainly seemed to be getting his share of contacts. 4OB and 4EW both putting out good signals on 40 mx; also understand 4OB has been trying his luck on 20 mx.

On Sunday, February 25, further 56 mc tests were conducted by 4AW, 4GK and 4RY, and on this occasion two-way telephony was successfully established between 4AW, Nundah, and 4RY, who was using portable equipment and was located at Mt. Gravitt, approximately eleven miles from Nundah. The reports of signal

strength were R6-7 in each case, and both 100 per cent. copy. 4GK, of Wynnum, was also heard by 4RY at R6, but owing to skeds having been arranged on 40 mx by 4GK he was unable to continue after 10 a.m. However, further tests are being arranged, and the results will be published at a later date.

Cheerio, 73, Cul.

RY.

## VK5 (SOUTH AUST.)

Conditions in VK5 up to March 22nd have been far from good for DX work. The recent heat waves have made the wearing of the cans almost unbearable even for short periods, with the result that the majority of the hams have been doing very little as regards DX. 40 metres is not as good as it was a few months ago, being at times very patchy. With the changing of the seasons the signals are coming in later now, EA's being particularly strong until 7.30 in the morning.

Sunday morning phone rag chews on 40 metres are becoming increasingly popular in VK5. The band is literally full of them, but it is pleasing to see the majority of them go back to CW before nightfall, instead of causing QRM with their phone. 5NR puts out quite a respectable sig, and among others who are usually heard are 5MV, 5KL, 5PS, 5HB, 5MF, 5FM, 5LP, 5MK, 5KG and 5DX.

The Transmitting Section held a meeting on March 14, when the annual election of officers took place. Those elected were:—Chairman, Gordon Ragless, 5GR; Secretary, Colin Howie, 5RF; Assistant Secretary and QSL Officer, George Luxon, 5RX. 5RX will also be Federal QSL Officer. It was with regret that the resignation of 5BJ as QSL officer was received. Bobbie had held the position for five years. In 5RX the section has a worthy successor, who can be relied upon to carry on the good work done by 5BJ.

5GO still continues to hear everything under the Heavyside Layer—SM, VP5, OH, D, etc. George has a particularly bad location, his aerial being almost buried in huge gum-trees. 5RX recently worked his forty-first country. George has been on 20 mostly, though occasionally he gives 40 a go. Hears plenty. ZT, ZS, SM, etc. Our electron coupled king, Bob

Manuel, 5RT, went and got married a few weeks ago. The gang wish him all the best, though we expect that YF QRM will make him curtail a few of his experiments.

5KL, one of the many new chaps on the air, has changed over from self-excited to a two-stage xtal rig, using a 46 oscillator and a 45 p.a., with 16 watts input. Has been getting chirpy PDC reports, but hopes to rectify this as soon as he gets a separate power supply for each stage. Also been working ZL's on 20. 5MV, another new ham, has been rebuilding; with a Hartley with a 45 for the time, but hopes to go on crystal soon. 5JH, of Norwood, has been working SM, G, D, and other European DX lately. Vic. has now brought his number of countries up to 40.

5SU (ex 5MU) has not been doing much lately, except working W's on 20 in the morning. Our friend, Ted Kirby, from the Granites, Central Australia, paid us a flying visit the other night. His call is 5EK. Says VK3, 4 and 6 come through well up there, but VK5 and VK2 are very poor. 5EK is on every Sunday, and is always glad to QSO. 5BJ has not been doing much lately. Servicing BCL sets takes up quite a lot of Bobbie's time.

Harry Roberts, of 5MY, still continues to work fresh countries. His tally is now 41, including 25 this year. Harry puts out a good note from a three-stage xtal rig with an E406 as p.a. Had BCL trouble for awhile, but his has been fixed up now. 5NR, one of the most recent arrivals on the air in VK5, is doing well. Has worked 14 countries already on a four-stage crystal rig, and was recently QSO with six W's in three-quarters of an hour. Recently received R5 from a K6 on phone. 5JO is one of our most consistent stations. Works plenty of W, PK and J's. 5ML has deserted 40, and is spending all his time on his 200 metre phone transmissions on 1480 kc. 5MD is temporarily off the air on 40, because of a blown xtal.

5YK still continues to drag in plenty of DX on Saturday nights. Has no trouble in QSO-ing LA and other European DX. A single sig super is used, so no trouble is experienced in hearing them. Colin Howie, of 5RF, is one of our most enthusiastic new hams on the air.

Our staunch supporter of self-excited oscillators, 5LG, has changed

over to crystal control on 40. Leith "acquired" the famous 5RO crystal, and has been QRL rebuilding the rig into a rack and panel job. The note sounds fb, but since reading the note about him by "QRZ" in last month's "A.R." Leith has become key-conscious. Is saving up to take code practice from "QRZ." Hi! hi! hi! 5LG, his second op, and 5RF are still trying to find out if they were sober on Christmas Eve. They certainly made a lot of noise in the city. 5WP still works early morning DX. Got R7 from XZN2C in the mid-Atlantic recently, and also has no trouble in QSO-ing FB, CT, and EA.

5RP has been off the air for some time. 5WR still snags DX occasionally, with a PDC note. Uses a 210 in a T.P.T.G. 5TX, our super QRP king, has one of the best notes on the air. 5FM has been having a holiday from DX. Had to pull out of the ARRL test because of punk conditions. The rig used at this station is a four-stage xtal with a 45 oscillator, 46, 46, and push pull E406.

Well, chaps, your scribe this month is the South Australian Editor himself. Geoff, 5ML, has been QRL lately, so I will be writing the notes for the next few months. I would like to see more dope on the country hams in these notes, so wake up, you chaps, and let me have some news.

Cheerio to all Interstate hams, and 73's from

ERIC HALLIDAY.

## VK6 (WEST AUSTRALIA)

There was a good attendance of hams at the general meeting held at headquarters on March 15. Those present were JK, WM, SA, KR, CX, BN, CP, FG, RL, LJ, MN, BB, LK, and FT, also about a dozen associates.

After much discussion it was decided to co-operate with the radio traders at their exhibition to be held in April.

Circulars are being sent to all unfinancial members asking for immediate recognition of their liabilities.

The chairman reported that the A.O.P.C. classes were in good order and making excellent progress. Other business was systematically disposed of, and the meeting concluded with a detailed description of gear exhibited by members.

6BN exhibited and explained a receiver employing a 6F7 and 37 with a 171A as final stage.

6BB had a portable xmitter, also of sound construction and noted ability.

6SA exhibited a man-power DC generator made up of spare parts from motor cars, cinema machines, and what not, all put neatly together to produce 500 volts at 60 mils.

A hearty vote of thanks to exhibitors brought to a close a f.b. meeting.

6KP, of Meekatharra, was with us, and we wish him good luck and DX.

KP is a new addition to the ranks of VK6.

Conditions on all bands have been fairly quiet since last issue, and the few stickers have been hard pushed to get much DX.

In the evenings a few DX stations worked were AC PK KA and a Yank or two. Signals heard in the early morning are a few G's and W's, with an occasional Frenchman.

6KB, after trying to get a xtal rig perking with little success, has gone back to his Hartley, and at last has landed his first Yank.

KO has had a puncture on his MOPA. The Neut Condenser shorted and bang went his Electrolytics.

Quite a lot of the gang have gone antennae mad and pretty little lights can be seen on some of the sky wires. Among the disciples of 6MN are FG and RA. Those lights, boys, will correspond with any thumps your BCL friends might be getting. Hi!

6CP still keeps a nightly vigil, and can be heard up to 10 p.m. pounding CQ.

6LJ still QRL with QSL Bureau and cricket. Country hams 6FL, RW, FM, consistent, but where is 6RS?

Most other hams too hot and tired to pound brass, but let's hope cool weather will bring them back.

6HD often heard working locals on fone and CW.

Cannot hear any of our gang on the W. Test, and 6SA must be resting.

6AG very QRL with new station building at Northam, and JK QRL picking (winners?).

PUT AT END

Brother Hams, I seek your assistance. Station 6CP will be on the air on every Wednesday night for the receipt of your dope, also on Sundays.

73.

(Signed) C. R. COOKE,

VK6CP.

The shack meeting held at headquarters on March 1 was only mo-

derately attended, the cause being that some of our boys were making themselves familiar with broadcast station operation at 6PR.

By the time this reaches the press their fate will be in the hands of the P.M.G.'s examiners. Included among those sitting for the commercial are:—6KR, MU, MY, FT, and LK.

Despite the poor attendance at the above meeting an interesting rag took place, and some novelties were on show. Chief among these was a "Jack-in-the-box" code outfit, explained and exhibited by 6AG. 6BB had a tophole mega., and many envious looks were cast at the owner thereof. Most of the others told tall stories of their doings in the good old days of amateur radio bugs.

Members please note that shack meetings are held on the first Thursday, and general meetings on the third Thursday of each month.

## VK7-TASMANIAN DIVISION

Another ARRL test has come and gone, and brought with it the usual terrific QRM. The severity of the QRM this time was due largely to the number of stations operating, and not so much to the quality. The broad channel-sweeping ICW signal was practically non-existent, nearly all W sigs being CC, although many of them sounded as though some filter in the finals would have been in order. The 7000 KC end of the band was just a living mass of signals, pounding through night after night in search of the elusive DX contact. All the W districts and VE 5's and 3's were easy to raise here. VE 2's, 4's, 8's and 9's were seldom heard.

The 40 MX band was the only band used to any extent, mx being very poor for W contacts just yet.

The conditions during the test in VIH were good, although one or two nights during the week it was found very hard to raise anything after about 11 o'clock.

At the 7300 KC end of the band VK3MR, 30C, 2ZH, 5HG and ZL3CC and 2GN seemed to be getting a large number of contacts. The QRM at this end of the band was not nearly so severe, but gave an ample number of contacts with less "sri om pse rpt" stuff.

7JB, after several burn-outs, break-downs, etc., managed to QSO quite

a number, but thinks he would have done better had his xtal been abt 7280 KC's. Hopes to scrape a few layers off it, and be on that spot pretty soon.

The similarity between our calls, 7RC, OM, often had me tricked for a moment when the Yanks were coming back—only a dot the difference, what! Hi! Have the same trouble?

7BJ is a new ham with plenty of punch and key clicks. Worries 7JB plenty. Has a MOPA with about 70 watts on E406's in PP.

7KV made some changes in his antenna just prior to the test, and now QSO's Yanks with ease.

Well, QRN now, and C U next month. 73. 7NC.

## VICTORIAN QSL BUREAU

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VK2NR, who is shortly to leave on a trip to England, writes eulogising the efficacy of the Australian Qsl Bureaux.

VK2TB (late VK3RB), who is now on the operating personnel of 2UW, mentions that although his new call sign sounds a bit "consumptive" it manages to get across to W in good style.

The writer, while enjoying a tour of the far North-East of Victoria and the Goulburn Valley, called in on four different hams and found none of them at home. Evidently radio is not the only hobby of the country ham.

VK3WL has been recently blessed with another junior op, making the total three males and two yls. Guess in ten years' time station VK8WL should be on the air 24 hours in the day.

While on the subject of junior ops, my worthy colleague, VK2YC, QSL manager for VK2, complains that the qrm caused by his newly-arrived heir has effectively stifled his 28 MC inclinations.

VK3RJ, Qsl Manager.

# R.A.A.F. Wireless Reserve Notes



## VMC

Total No. of Messages **551**

Average per Station **26**



## VMC4

Total No. of Messages **214**

Average per Station **35.5**



## 3D1

Total No. of Messages **105**

### Federal Notes by the C.O.

There are two stories to be told concerning the Reserve's co-operation activities during the last month.

Firstly, the R.A.A.F. sent a flight of Wapitis, Bulldogs and a Southampton over to Tasmania to attend the various pageants. This called for continuous communication between the mainland and the island, and also between the North and South cities of VMG. The organisation and work done by 7Z1 and his members was excellent. Daily watches were kept with 1A1, and a chain of communications was opened all around Tasmania for advanced weather reports and landing ground information, etc. As usual, on the day of departure, the flight was supplied with an up-to-date weather report from Launceston. The watch between 7Z1 and 1A1 was timed for 0700 hours, and at 0750 hours, after trying all bands available, 1A1 became a trifle uneasy, as the machines were due to leave at 0800. A call in desperation brought 7Z2 on the air, and the weather report went through in time. It was not until the following night that 7Z1 reported that his power had been off, and was unable to answer 1A1's many calls! We must look into this emergency power supply business. The Reserve is an emergency body, and as such it must be prepared for occasions such as this at any time. We might ask our editor to publish full details on the construction of suitable equipment!

As an example of where stand-by equipment may prove of value I'es in the second story. Three Moth aircraft recently left Point Cook for a night flight to Adelaide via Ballarat, Stawell, Nhill and Cook's Plains, land-

ing at Parafield (S.A.). If there were an occasion when the Reserve was most needed this was certainly one. To be able to fly to Ballarat, land, receive a weather report from Stawell, have someone to radio a report-on-arrival message back to a squadron and forward any instructions to the next stopping place is a part of the service that the Reserve rendered on this unique occasion. It was an opportunity that comes once in a while. All Western VMC reservists were on the job, and in conjunction with 5Z1 contacted 1A1 throughout the flight. Messages received at 1A1 were sent direct to the Squadron via VJP. The perseverance of those who took part is to be marvelled at. 3C3, 3B3, 3A4, 5Z1 and others showed intense interest and enthusiasm by staying up nearly all night to see the job through. However, the details of the flight must be left to the D/C's to write up, as they made the arrangements, and will probably have a few side-lights to relate.

Could this co-operation have been a success if the stations were without power?

### THIRD DISTRICT NOTES.

By 3Z1-VK3UK.

The Reserve officially commenced work on the 1st March, but as the organisation has been complete here in Victoria for some time general work and schedules have proceeded just as usual.

The main news of interest this month was a co-operative stunt with three RAAF Moths that carried out a training flight, by night, to Adelaide and back, on the nights of the 5th and 7th March. The machines did not carry W/T, but were equipped for

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lamp signalling. Only the stations directly on the route, 3A4, 3C3, 3B3 and 3E3, co-operated actively. However, in case the planes had to deviate from their course, 3D1, 3D2, 3D3 and 3A5 stood by on the first evening. 3A4, who is situated at Ballarat, met the machines on arrival, and handed the O/C Flight weather reports, and all traffic that had come through for him. The other stations not situated at any of the scheduled landing points but had emergency landing grounds, arranged for them to be lit in case they were needed. 3C3 lit a bonfire and had half the local fire brigade equipment ready in case the wind arose and set the surrounding grass alight. 3A5 and 3D2 did not risk a fire, but ran a truck out on to their ground and turned the headlights aloft. In each case these stations put a key in series with a spotlight to signal a position report to the machines as they passed overhead. The idea was that the station should receive an O.K. from the planes and then immediately send a report by radio to 1A1, where 1A1 and 3Z1 were standing by. On the trip over, as the planes flew a compass course, they passed north of all the stations, but on the return flight they flew down the main railway line, and thus passed over each of the co-operating Reserve stations.

Now, it can be realised that, for a Reserve station to be of 100 per cent. usefulness, it must possess an operator of resource and initiative, as well as an experienced traffic handler. This was amply proved on the return flight, when the planes were believed to be overdue. A short call acquainted 3C3 with the position, and he immediately tried to ring Nhill to see if they had arrived there safely. However, the Stawell exchange closes at 2200 hours, so he called up 3B3, who dashed into Stawell in his car, roused the exchange operator from bed, and put 3C3 through to Nhill! It was learned that two machines had arrived, but nothing was known of the third one. Although the time was well past midnight, the owner of the drome, Mr. Young, obligingly went out and phoned through the news that all three machines had come in. They had been delayed by strong headwinds. 3A4 got no sleep at all that night, and, although a comparatively new station, put through all traffic in a machine-like manner. On him de-

volved the responsibility of arranging for the street lights to be left on at Laverton, as well as the collection of weather reports and traffic for the machines.

From the Reserve point of view the stunt was very successful, and was a concrete example not only of the efficiency and enthusiasm of all stations concerned, but also of their initiative.

It will be noticed that VMC traffic totals are considerably smaller this month than either of the two preceding months. The reason for this is partly that a number of stations have been away on holidays, but more because we are now settling down to a routine traffic flow. The handling of a certain amount of traffic is absolutely essential for the maintenance of efficiency, but handling excesses is one of the surest ways of stifling enthusiasm. When the monthly contests started in January we wanted to show what we could handle in a month, but now, as no useful purpose can be gained, we are only handling essential RAAF messages, plus traffic dealing within our own domestic organisation. Any station should be able to maintain 100 per cent. efficiency by handling the equivalent of one message per day, so our aim is to average about 30 messages per station per month. Thus the handling of traffic will always be a real pleasure and never a drudgery.

### FOURTH DISTRICT NOTES.

By 7Z1-7RC.

Conditions generally have improved in VMD during the past month, old man static having taken a back seat for a while, and allowed easier contacts. One disadvantage as far as 4ZL is concerned is the sudden appearance of a bad power leak background of R4 strength, which is very persistent and creating some concern.

The number of members keeping regular watches has gradually increased during the last three watches, and it is hoped continues to do so. Quite a few of those interested, and not already enlisted, have returned reports acknowledging reception of both the 4155 kcs and 6555 kcs Sunday broadcasts' good readability.

4GA recently put in an appearance at the conclusion of a watch, with a few "B" batteries and a 201A. He promises to be a regular watch keeper



after being off the air for several years.

4B2 finds the watches interfere with his BCL broadcasts, so is trying to alter them, i.e., the BCL bdcsts.

4B1 is still off, as no AC available yet, and "B" batts rather costly items.

Several new members are awaiting their section and call sign allocations, which require careful allotting in VMD, as most members are separated by very great distances, and in order to provide reliable inter-section contacts.

## Traffic Totals.

4A4, 8; 4DR, 2; 4JM, 1.

## FIFTH DISTRICT NOTES.

By 5Z1 (5SU ex-5MU).

Following the resignation of 5MB as D/C, the Reserve is being reorganised in this State. Reserve calls have been issued to five members, whose enrolment has been confirmed, while seven other applications are before the Air Board, with bright prospects of many more to follow.

Regular watches are being maintained by 5Z1 on 6555 kcs., and all districts can be heard at good strength during the mid-week watches.

The recent night flight between Melbourne and Adeladie was of great interest, and traffic for both ends was handled by means of regular schedules with 1A1 throughout the flight.

Weekly broadcasts are to be given each Sunday on 3.5 mc between 9 and 10 a.m.

5B2 is busy building his receiver, while 5A4 has struck trouble with the local power company, who keep him short of watts for many hours each day. 5A2 is using SE, while 1A1 is redesigning his CC transmitter.

Since the sections are not yet working regularly, the notes for this month are not very comprehensive, but it is anticipated that two sections will be active by the time these notes are published, and that the members will have found the strange procedure second nature to them.

## SIXTH DISTRICT NOTES.

By 6Z1-6MN.

Several new applications have been received from country stations this month, who show desire to join up in VMF. A change in training frequency will be made after Easter and all stations will work on 80 metres. This has been proved necessary, as the conditions over here do not permit 100 per cent. working all around

the State on the higher frequencies. It is realised that this band requires only low power, and is ideal for domestic work at all times. Nothing has been heard of 6BO and 6FM lately, but it is understood that they are pretty busy, but will be again shortly. 6FL is shifting to Albany, and will be heard from that QRA as soon as the stick is up. 6Z1 has debunked crystal control in favour of an electron coupled-all-wave oscillator. 6FO is shaping well, and maintains watches with 5Z1 for relays. We hope to have official calls allotted soon, and finally get things under way. At present there are four very active and efficient metropolitan stations keeping regular watches. 6LJ is also rebuilding.

## Traffic Returns.

6Z1, 27; 6Z2, 32.

## SEVENTH DISTRICT NOTES.

(By 7Z1-VK7RC.)

The official commencement of training in VMG has not started very well, Members, for various reasons being otherwise engaged, are unable to devote the time to Reserve work that they would like.

VMG1 has received a setback, due to the loss of 7A3, who has left VMG for Melbourne to reside. I am sure that all VMG members will join with me in wishing 7A3 the best of luck in his new sphere. Although only a newcomer on the air, 7A3 had shown an example that could well be followed by other stations.

7A1 is holidaying at St. Helens, and has missed with his monthly report, and traffic total.

7A2 has kept a few schedules for traffic handling, but circumstances have not permitted a great deal of traffic to be sent.

The main item of interest for the month was the visit of a squadron of planes from VMC. Although a Reserve station was made available at each town visited by the planes, except one, very little traffic was put through for them.

The weekly B/C is now given to all members by the D/C on Wednesday night. Thus the news is received from 1A1 and given to all members a few minutes later on 3.5 MC.

7B1 reports some new enrolments in the South, and hopes to have VMG2 working shortly.

## Traffic Totals for March.

7A1, 34; 7A2, 43; 7A3, 14; 7LZ, 7; 7Z1, 39.

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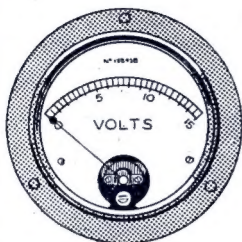
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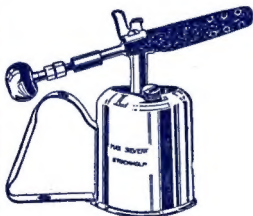


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